

## **IN THE SUBSTITUTE SPECIFICATION**

Please cancel paragraphs 003, 021, 022, 026, 029, 030, 038 and 044 of the Substitute Specification. Please replace those cancelled paragraphs with replacement paragraphs 003, 021, 022, 026, 029, 030, 038 and 044, as follows.

**[003]** A method and an arrangement for the automatic feeding of a printing plate to a plate cylinder, or for the removal from a plate cylinder of a rotary printing press is known from DE 39 40 795 A1. That method for the automatic feeding of a printing plate to a plate cylinder of a rotary printing press, in which the plate cylinder has, inter alia, assemblies for clamping and for bracing or tensioning the printing plate, provides for the printing plate to be placed into a storage chamber of printing plate feeding or removal device. The plate~~The plate~~ cylinder is rotated into a plate feeding position, and the printing plate is conducted to a clamping device of the plate cylinder by the use of a number of transport rollers. The above-identified method for the automatic removal of a printing plate from a plate cylinder of a rotary printing press, in which the plate cylinder has, inter alia, assemblies for unclamping and releasing the printing plate, is distinguished in that the plate cylinder is initially rotated forward into a printing plate release position. A clamping flap for grasping a printing plate leading end is then opened. ~~The opened~~ The plate cylinder then rotates backward, and a clamping flap for grasping a printing plate starting end is opened. The printing plate is then conducted to a storage chamber of a printing plate feeding or removal device by the use of a number of transport rollers. The device for performing the above-described method has at least one transport roller embodied as a drive roller and one embodied as a pressing roller, and wherein the pressing roller can be placed against the drive roller. In addition, various actuating devices, a pivotably seated pressing roller for pressing the printing plate against the plate cylinder, as well as ejection fingers, can be provided. The ejection fingers can have tips, which are arranged so that they can be pivoted into

the periphery of the plate cylinder. Also, the storage chamber of the printing plate feeding or removal device can be seated, pivotable around a joint.

**[021]** Referring initially to Fig. 1, dressing 01, which is configured as a plate-shaped printing forme 01, or as a support plate supporting a printing blanket, has a substantially rectangular surface of a length L and a width B. The length L can assume, for example, a measured values between 400 mm and 1300 mm, and the width B has a measured values, for example, between 280 mm and 1500 mm. The generally rectangular surface has a support side, called support side or surface 02 in what follows, with which support side or surface 02, in the dressing mounted state, the dressing 01 rests on a surface area 07 of a cylinder 06, as seen in Fig. 2. The back or inverse of the support surface 02 is a work surface which, in the case in which ~~the~~ the dressing 01 is embodied as a printing forme 01, is provided with a printing image, or which can at least be provided with a printing image. The dressing 01 has two oppositely located ends 03, 04, which delimit the support surface 02. Angled or beveled suspension legs 13, 14 extend from dressing ends 03, 04 respectively, and each such leg 13, 14 preferably extends entirely, or at least partially, over the width of the dressing 01. The support surface 02 of the dressing is flexible at least along the length L and can be matched to the curvature of the surface 07 of a cylinder 06, as seen in Fig. 2, when the dressing 01 is being fastened on a surface area 07 of a cylinder 06 of a printing press. In the mounted state of the printing forme, the length L of the support surface 02 thus extends in a direction of the circumference of the cylinder 06, while the width B of the support surface 02 extends in the axial direction of the cylinder 06. In actual use, the measurement of the width B of dressing 01, in particular, varies within defined predetermined tolerance limits, since the original width B of the dressing 01 is typically reduced by effecting a trimming of at least one of the longitudinal sides of the dressing 01. This trimming may be done, for example, for adjusting a position of a printing image on the working surface of the dressing 01 to a defined distance measurement with respect to at least

one of the long sides of the dressing 01. Here, the tolerance limits lie, for example, within a range between fractions of a millimeter and up to a few millimeters. Thus, the width B of the dressing 01 can differ from other identical dressings 01 used on the same cylinder 06 within the permissible tolerance limits.

**[022]** As represented in Fig. 2, the suspension legs 13, 14 of the dressing 01 are fastened by the provision of a holding device. Such a holding device is conventionally arranged in a channel 08, and wherein, as a rule, the channel 08 extends in a axial direction in relation to the cylinder 06. An end 03 of the dressing 01, which end 03 is aligned in the production direction P of the cylinder 06, is called its leading end 03, while the oppositely located end 04 is referred to as the trailing end 04 of the dressing 01. At least the ends 03, 04 of the dressing 01, with the suspension legs 13, 14 formed thereon, consist of a rigid, such as a metallic material, and particularly, for example, of an aluminum alloy. A thickness D of the material of the dressing 01, as seen in Fig. 1, or the thickness D of at least the suspension legs 13, 14 is customarily ~~a customarily~~ a few tenths of a millimeter, for example is 0.2 mm to 0.4 mm, and preferably is 0.3 mm. Thus, the dressing 01, as a whole, or at least its ends 03, 04, consists of a dimensionally stable material. The ends 03, 04 of dressing 01 can be permanently deformed by bending against a material-specific resistance.

**[026]** The cylinder 06, which has hereinabove been described by way of example, can be structured in such a way that several, preferably identical dressings 01 can be arranged on its surface area 07. If the cylinder 06 is configured as a forme cylinder, it can be covered, in its axial direction, with, ~~direction, with,~~ for example, six side-by-side arranged plate-shaped printing formes 01. It can also be provided that more than one dressing 01 which can be applied to the cylinder 06 in the direction of its circumference. For example, two channels 08, each extending axially with respect to the cylinder 06 and each having associated openings 09, can be

provided, which two channels 08 are arranged, offset by  $180^\circ$  with respect to each other, on the circumference of the cylinder 06. With this coverage of the cylinder 06 by two dressings 01 which are arranged one behind the other along the cylinder's circumference, a suspension leading leg 13 of a leading end 03 of one dressing 01 is fastened in the first channel 08, while a suspension trailing leg 14 of a trailing end 04 of the same dressing 01 is fastened in the other channel 08. This correspondingly ~~This correspondingly~~ applies to the remaining dressing, or dressings, 01 arranged on this cylinder 06. Also, the dressings 01, which may be arranged side-by-side in the axial direction of the cylinder 06, can be arranged offset with respect to each other, for example individually or in groups each by one-half the length L of the dressing 01. This, however, requires that further channels 08 with associated openings 09, or at least partial lengths thereof, have been cut into the cylinder 06 and are arranged, for example offset by  $90^\circ$  with respect to the two previously mentioned channels 08 and openings 09, along the circumference of the cylinder 06.

**[029]** In addition to the use of the force FG of the weight of the dressing 01, or as an adjunct to it, the leading end 03 of dressing 01 can be simply prestressed Fig. 04, so that the suspension leg 13, formed at the leading end 03 of the dressing 01, springs into the opening 09 because of a restoring moment MRRM directed toward the cylinder 06. This occurs as soon as the opening 09 of the cylinder 06, and the contact line 27 of the suspension leg 13 with the surface area 07 of the cylinder 06, are located directly opposite each other as a result of a relative movement between the dressing 01 and the cylinder 06, which relative movement takes place, in particular, by rotation of the cylinder 06 in the production direction P.

**[030]** The restoring moment MRRM results from the fact that the dressing 01 consists of an elastically deformable material and therefore inherently has an elastically resilient property. This property can be utilized because, in the course of bringing the leading end 03 of the dressing 01

to the cylinder 06, the dressing 01 is conducted, for example, over an edge 26 of a support element 24, which support element 24 is preferably extending in the axial direction of the cylinder 06 and is spaced apart from the cylinder 06. Dressing 01 is bent there in such a way that a bending stress with a spring force directed toward the cylinder 06, shown in the dashed line representation of the dressing 01 in Fig. 4 is built up at the leading end 03 of the dressing 01. At least until the leading end 03 of the dressing 01, which is conducted over the edge 26 of the support element 24, rests on the surface area 07 of the cylinder 06, the dressing 01 is fed, with force exerted on its trailing end 04, from a spatial direction which is fixed with respect to the cylinder 06. In this way, the dressing 01 is stabilized during the mounting process along its contact line 27 of its suspension leg 13, attached to the leading end 03, with the surface area 07 of the cylinder 06, as well as by its support on the edge 26 of the support element 24 and by a positional fixation of the dressing trailing end 04. The support element 24 can be a rolling element 24, for example, which can be placed against the cylinder 06, for example. In this case, the support element 24 is preferably arranged close to the cylinder 06. However, it is also possible to provide, in addition to the support element 24, a further rolling element 47 or 62, such as is seen in Fig. 6 or 9, and which will be discussed later, wherein the support element 24 can be arranged at a different position and need not be capable of being placed against the cylinder 06. For example, in this case shown in Fig. 4, the purpose of the support element 24 can be limited to generating a bending stress in the dressing 01.

**[038]** In its work position, a movably arranged printing forme magazine 38, 39 can be fixed in place adjacent to a forme cylinder 31, 33, at its distance  $a_{38}$ ,  $a_{39}$ , and in its orientation by the provision of an arrestment device 83, as seen in Fig. 5. The arrestment device or stop 83 can be provided by a conical bolt 83, for example, which is fixed in place, in reference to the forme cylinder 31, 33, for example, and which conical bolt 83 enters into an opening in the housing of the printing forme magazine 38, 39. This conical bolt 83 centers a printing forme magazine

38, 39, which has been pivoted to the forme cylinder 31, 32, for example, with respect to the barrel of the forme cylinder 31, 33 by its openings o38, o39. The conical bolt 83 has been preferably configured in such a way that, in the course of its entry into the housing of the printing forme magazine 38, 39, no self-locking effect will occur. Instead, an incline is only used for positioning the printing forme magazine 38, 39. With regard to side register, it is advantageous to bring the forme cylinder 31, 32 into a predefined position, with respect to the printing forme magazine 31, 33, for example to put it into a zero position with respect to the side register, before accomplishing an exchange of a printing forme 36, 37 between the forme cylinder 31, 33 and the printing forme magazine 38, 39. Alternatively, is also possible, for setting the forme cylinder 31, 33, to bring the printing forme magazine 38, 39 into a predefined position laterally, with respect to the forme cylinder 31, 33, so that the exchange of a printing forme 36, 37 between the printing forme magazine 38, 39 and the forme cylinder 31, 33 can take place correctly aimed and without lateral offset. For example, the printing forme 38, 39 can be brought into a predefined position laterally, in relation to the forme cylinder 31, 33, so that the printing forme magazine 38, 39 is placed in a lateral position free of play. This can take place wherein the printing forme magazine 38, 39 is introduced, preferably with at least a front area oriented toward the forme cylinder 31, 33, into a gap extending axially with respect to the forme cylinder 31, 33. The gap has lateral boundaries which are stationary with respect to the frame of the printing press.

**[044]** The holding element or ratchet 48 engaged with the trailing end 04 of the printing forme 37 is snapped together with the stop 52 because of the jolt. The holding element 48 can be embodied to be wedge-shaped, for example, and the tip of the wedge can be oriented toward the opening of the chute 42, as seen in Fig. 6, so that, in the course of the conveying movement of the used printing forme 37 the trailing end 04 of the printing forme 37 initially lifts the holding element 48 against a force, such as, for example, the force of the weight of the holding element

48, or against a spring force of a spring which is operatively connected with the holding element 48, until the beveled suspension leg 14 at the trailing end 04 of the printing forme 37 extends behind the holding element 48 and grips it. The holding element 48 is then again lowered into its initial position. The jolt of the trailing end 04 of the printing forme 37 against the stop 52 can trigger a control signal, by the use of which control signal, the carriage 51 of the first conveying device 49 is put into motion for conveying the printing forme 37 completely into the chute 42. The used printing forme 37 can thereafter be taken out of the side of the chute 42. Removal of this used printing forme 37 can be made easier because an ejector, that is not specifically shown, [[ 86]] is preferably provided in the printing forme magazine 39, which ejector [[ 86]] conveys the used printing forme 37 laterally sufficiently far out of the chute 42 so that the printing forme 37 can be grasped. Reaching into the chute 42 is thus not necessary.